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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/106,858	06/30/1998	ARIE M. WIJNEN	9655-0001-2	7286

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1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

MCCHESENEY, ELIZABETH A

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 05/07/2004

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/106,858

Applicant(s)

WIJNEN ET AL.

Examiner

Elizabeth A McChesney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-25 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23 is/are allowed.
- 6) ☒ Claim(s) 22, 25-29 and 31-35 is/are rejected.
- 7) ☒ Claim(s) 30 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 22, 24-29, 31-33 and 35** are rejected under 35 U.S.C. 102(b) as being anticipated by Bedini (US Patent No. 4,644,422).

Regarding **claim 22**, Bedini discloses an anti copy system wherein an inaudible signal (degrade signal) is combined with the original (source) signal (abstract-lines 1-8). Bedini further discloses that when played the original signal is not effected by the inaudible signal and therefore the combined signal is undisturbed when played (abstract-lines 13-17). However, the recording of the combined signal produces a disturbed signal (abstract-lines 17-23). Bedini further discloses a very low frequency signal with a ramping frequency between 0.1 Hz and 5 Hz, wherein the claimed limitation 2Hz is within this range (col. 11-lines 19-22).

Regarding **claims 24 and 25**, Bedini discloses an anti copy system wherein an inaudible signal (degrade signal) is combined with the original (source) signal (abstract-lines 1-8). Bedini further discloses that when played the original signal is not effected by the inaudible signal and therefore the combined signal is undisturbed when played (abstract-lines 13-17). However, the recording of the combined signal produces a

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disturbed signal (abstract-lines 17-23). Bedini further discloses a degrade signal generated by modulating the output signal of a pulse width modulator circuit with the source signal and then combining the modulated signal with the source signal (col. 2-lines 20-26). Bedini further discloses the PWM uses a high frequency of 18.5 kHz, which reads on approximately 20 kHz (col. 8-lines 57-68). Bedini further discloses the high frequency disturbance is modulated by modulating the signal with the source signal, which reads on the claimed limitation.

Regarding **claim 26**, Bedini further disclose modulating the signal by passing the signal through a pulse amplifier to be combined with the source signal (col. 9-lines 39-48).

Regarding **claim 27**, Bedini discloses an anti copy system wherein an inaudible signal (degrade signal), generated by a signal generator 12 (see figure 4a) is combined with the original (source) signal (abstract-lines 1-8). Bedini further discloses that when played the original signal is not effected by the inaudible signal and therefore the combined signal is undisturbed when played (abstract-lines 13-17). However, the recording of the combined signal produces a disturbed signal (abstract-lines 17-23). Bedini further discloses the combining of the degrade signal and the source signal is done via mixing or multiplying (col. 7-lines 35-38).

Regarding **claim 28**, Bedini discloses an anti copy system wherein an inaudible signal (degrade signal), generated by a signal generator 12 (see figure 4a) is combined with the original (source) signal (abstract-lines 1-8). Bedini further discloses that when played the original signal is not effected by the inaudible signal and therefore the

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combined signal is undisturbed when played (abstract-lines 13-17). However, the recording of the combined signal produces a disturbed signal (abstract-lines 17-23). Bedini further discloses the signal generator provides a very low frequency signal with a ramping frequency between 0.1 Hz and 5 Hz, wherein the claimed limitation 2Hz is within this range (col. 11-lines 19-22).

Regarding **claim 29**, Bedini discloses an anti copy system wherein an inaudible signal (degrade signal), generated by a signal generator 12 (see figure 4a) is combined with the original (source) signal (abstract-lines 1-8). Bedini further discloses that when played the original signal is not effected by the inaudible signal and therefore the combined signal is undisturbed when played (abstract-lines 13-17). However, the recording of the combined signal produces a disturbed signal (abstract-lines 17-23). Bedini further discloses the signal generator provides a high frequency signal disturbance signal of 18.5 kHz, which reads on "approximately" 20 kHz (col. 8-lines 60-68 and col. 10-lines 45-47).

Regarding **claims 31 and 32**, Bedini further discloses the high frequency disturbance is modulated by modulating the signal with the source or original signal, which reads on the claimed limitation.

Regarding **claim 33**, Bedini further disclose modulating the signal by passing the signal through a pulse amplifier to be combined with the source signal (col. 9-lines 39-48).

Regarding **claim 35**, it is interpreted and thus rejected for the same reasons as set forth above in claim 1. Since claim 29 discloses an apparatus, which corresponds

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to, the method of claim 35; the method is obvious in that it simply provides functionality for the structure of claim 29.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 34** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bedini (US Patent No. 4,644,422).

Regarding **claim 34**, Bedini discloses an anti copy system wherein an inaudible signal (degrade signal) is combined with the original (source) signal (abstract-lines 1-8). Bedini further discloses that when played the original signal is not effected by the inaudible signal and therefore the combined signal is undisturbed when played (abstract-lines 13-17). However, the recording of the combined signal produces a disturbed signal (abstract-lines 17-23). Bedini further discloses a very low frequency signal with a ramping frequency between 0.1 Hz and 5 Hz. It would have been obvious to one of ordinary skill in the art to use this range beginning at a very low range of 0.1, up to 5 Hz, as well as experiment with lower or higher ranges. It would have been obvious to use a other ranges where success was found in varying the ranges a little lower or higher, for example 1Hz-6Hz or 2Hz-8Hz or 3Hz-12Hz or even 1Hz-10Hz.

Allowable Subject Matter

5. Claim 23 is allowed.
6. Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. Upon further examination the reference Bedini has been further applied for the above rejection. Merely combining an inaudible signal with the audio signal to perform copy protection does not constitute an inventive entity wherein the inaudible signal does not affect the played combined signal and any recording provides a disturbed combined signal is taught by the Bedini reference as put forth in the rejection above. Bedini further teaches the low and high frequency ranges provided via the signal generator. Bedini further teaches the degrade signal is generated by modulating the output signal of a pulse width modulator circuit with the source signal and then combining the modulated signal with the source signal. Bedini further discloses the PWM uses a high frequency of 18.5 kHz, which reads on approximately 20 kHz.

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Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. McChesney whose telephone number is (703) 308-4563. The examiner can normally be reached Monday – Friday, 8:00 am – 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks


Washington, D.C. 20231


Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.


SPE, Art Unit 2644

EAM 
April 26, 2004